**Listing of Claims:**

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application (material to be inserted in amended claims is in **bold and underline**, and material to be deleted is in [~~brackets and strikeout~~]). In brief, claims 36, 45, 47, 48, 53, and 55 have been amended, and new claims 59 and 60 have been added.

1-35. (Canceled)

36. (Currently Amended) A method of identifying a compound as a modulator of **G-protein-linked receptor activity** ~~a reaction~~ that generates or consumes a cyclic nucleotide **through the action of a cyclase or phosphodiesterase**, comprising:

conducting **a G-protein-linked-receptor mediated** ~~the~~ reaction that generates or consumes a cyclic nucleotide in the presence of a candidate compound;

contacting, in vitro, a product of the reaction with a luminescent tracer and with the opposite member of a specific binding pair to the cyclic nucleotide, wherein the tracer and the cyclic nucleotide compete for binding to the opposite member of the specific binding pair;

illuminating the tracer with polarized light, wherein the light is capable of inducing emission of polarized light from the tracer;

detecting the extent of polarization of light emitted from the tracer; and

identifying the candidate compound as a modulator of the reaction based on the extent of polarization of the emitted light.

37. (Previously Presented) The method of claim 36, wherein the cyclic nucleotide is selected from the group consisting of cAMP and cGMP.

38. (Previously Presented) The method of claim 36, wherein the opposite member of a specific binding pair is an immunological binding partner.

39. (Previously Presented) The method of claim 36, wherein the extent of polarization is determined using a function selected from the group consisting of polarization and anisotropy.

40. (Previously Presented) The method of claim 36, wherein the extent of polarization of the emitted light is inversely correlated with the concentration of the cyclic nucleotide.

41. (Previously Presented) The method of claim 36, further comprising determining the concentration of the cyclic nucleotide.

42. (Previously Presented) The method of claim 36, wherein the reaction is conducted using whole cells.

43. (Previously Presented) The method of claim 36, wherein the reaction is conducted using lysed cells.

44. (Previously Presented) The method of claim 36, wherein the reaction generates a cyclic nucleotide.

45. (Currently Amended) The method of claim 44, wherein the reaction ~~is catalyzed by~~ **generates a cyclic nucleotide through the action of** a cyclase.

46. (Previously Presented) The method of claim 36, wherein the reaction consumes a cyclic nucleotide.

47. (Currently Amended) The method of claim 46, wherein the reaction ~~is catalyzed by~~ **consumes a cyclic nucleotide through the action of** a phosphodiesterase.

48. (Currently Amended) The method of claim 36, further comprising repeating the steps of conducting, contacting, illuminating, and **detecting** ~~measuring~~ in the absence of a candidate compound, wherein the step of identifying the candidate compound as a modulator includes comparing the extent of polarization of the emitted light based on the reaction conducted in the presence of the candidate compound to the extent of polarization of the emitted light based on the reaction conducted in the absence of the candidate compound.

49. (Previously Presented) The method of claim 48, the reaction generating a cyclic nucleotide, wherein an increase in the extent of polarization when the reaction is conducted in the presence of the candidate compound in comparison with the extent of polarization when the reaction is conducted in the absence of the candidate compound identifies the candidate compound as an inhibitor of the reaction, and wherein a decrease in the extent of polarization when the reaction is conducted in the presence of the candidate compound in comparison with the extent of polarization when the reaction is conducted in the absence of the candidate compound identifies the candidate compound as an agonist of the reaction.

50. (Previously Presented) The method of claim 48, the reaction consuming a cyclic nucleotide, wherein an increase in the extent of polarization when the reaction is conducted in the presence of the candidate compound in comparison with the extent of polarization when the reaction is conducted in the absence of the candidate compound identifies the candidate compound as an agonist of the reaction, and wherein a decrease in the extent of polarization when the reaction is conducted in the presence of the candidate compound in comparison with the extent of polarization when the reaction is conducted in the absence of the candidate compound identifies the candidate compound as an inhibitor of the reaction.

51. (Previously Presented) The method of claim 36, the reaction generating a cyclic nucleotide, wherein the step of conducting the reaction includes providing a nucleotide triphosphate.

52. (Previously Presented) The method of claim 36, the reaction consuming a cyclic nucleotide, wherein the step of conducting the reaction includes providing the cyclic nucleotide.

53. (Currently Amended) The method of claim 36, further comprising repeating the steps of conducting, contacting, illuminating, **detecting** ~~measuring~~, and identifying for a different candidate compound.

54. (Previously Presented) The method of claim 53, at least one of the steps being performed using a microplate, wherein a different well of the microplate is used for each different candidate compound.

55. (Previously Presented) The method of claim 36, wherein at least one of the steps of conducting, contacting, illuminating, **detecting** ~~measuring~~, and identifying is performed using a microplate.

56. (Previously Presented) The method of claim 36, the step of conducting the reaction being performed in a reaction volume, wherein the step of contacting includes adding the luminescent tracer and the opposite member of a specific binding pair to the reaction volume.

57. (Previously Presented) The method of claim 36, wherein the luminescent tracer comprises a cyclic nucleotide coupled to a luminophore.

58. (Previously Presented) The method of claim 36, the step of conducting a reaction being performed inside a cell, further comprising the step of lysing the cell to obtain the product of the reaction prior to the steps of contacting, illuminating, detecting, and identifying.

59. (New) The method of claim 36, wherein the G-protein-linked receptor generates cAMP through G-protein activation and adenylate cyclase activity.

60. (New) The method of claim 36, wherein the candidate compound is a modulator of the G-protein-linked receptor.